

IN THE CLAIMS:

Please cancel Claims 18 to 36, add new Claims 38 to 40, and amend Claims 1 to 3, 5 to 7, 9 to 13, 15 to 17 and 37 as shown below. The claims, as pending in the subject application, read as follows:

1. (Currently Amended) A method of automatically establishing a desired communication between an originating device and a target device, said originating device and said target device each having an associated profile, said method comprising steps of:
  - (i) determining a profile compatibility between said originating device and said target device;
  - (ii) establishing said desired communication, if a direct profile compatibility between said originating device and said target device is found, said establishing being directly between said originating device and said target device; and
  - (iii) establishing said desired communication, if said direct profile compatibility between said originating device and said target device is not found, said establishing being indirectly between said originating device and said target device by incorporating at least one additional device, said at least one additional device having an associated profile, said incorporation forming linked device pairs among said originating device, said target device and said at least one additional device, wherein whereby said incorporation establishes a direct profile compatibility between each said linked pair of said devices; and each of the steps (i), (ii), and (iii) is performed by at least one of the originating device, the target device, and the at least one additional device.

2. (Currently Amended) A method according to claim 1, wherein whereby said incorporating comprises steps of:

(a) communicating, by one of said originating device and said target device, to a first additional device, thereby forming linked device pairs among said originating device, said target device and said ~~at least one~~ first additional device;

(b) establishing said desired communication, if direct profile compatibility is established between each said linked pair of devices;

(c) communicating, by one of said originating device, said target device and said first additional device, if said direct profile compatibility is not established between each said linked pair of devices, to a second additional device, thereby forming linked device pairs among said originating device, said target device, said first additional device, and said second additional device devices; and

(d) repeating steps (b) and (c) until said desired communication is established, said direct profile compatibility being established between each linked pair of devices.

3. (Currently Amended) A method according to claim 1, wherein whereby said incorporation comprises one of:

(x) forming a chain of devices commencing with said originating device, proceeding to each said at least one additional device in succession, and concluding with said target device; and

(y) forming a chain of devices commencing with said target device, proceeding to each said at least one additional device in succession, and concluding with said originating device.

4. (Original) A method according to claim 1 wherein each said device comprises one of a device or a service.

5. (Currently Amended) A method of establishing a desired communication between an originating entity and a target entity, each said entity being coupled to a communication network and having a corresponding profile related to information handled by said entity, said method comprising steps of:

(i) determining a compatibility between the profile of said originating entity and the profile of said target entity;

(ii) if step (i) finds ~~determines~~ a direct profile compatibility between said originating entity and said target entity, establishing said desired communication directly between said originating entity and said target entity; and

(iii) if step (i) fails to find ~~determine~~ said direct profile compatibility between said originating entity and said target entity, establishing said desired communication indirectly between said originating entity and said target entity by interposing at least one additional entity between said originating entity and said target entity to form a chain of ~~said~~ entities, each said additional entity having an associated profile, said interposing forming linked entity pairs between adjacent entities in said chain, wherein ~~whereby~~

said interposing establishes a direct profile compatibility between each said linked pair ~~of said entities; and~~

each of the steps (i), (ii), and (iii) is performed by at least one of the originating entity, the target entity, and the at least one additional entity.

6. (Currently Amended) A method according to claim 5, wherein ~~whereby~~ said incorporation interposing comprises one of:

(x) forming a chain of said entities commencing with said originating entity, proceeding to each said at least one additional entity in succession, and concluding with said target entity; and

(y) forming a chain of ~~devices~~ entities commencing with said target entity, proceeding to each said at least one additional ~~device~~ entity in succession, and concluding with said originating ~~device~~ entity.

7. (Currently Amended) A method of establishing a desired communication between an originating entity and a target entity, each said entity being coupled to a communication network and having a corresponding profile related to information handled by said entity, said method comprising steps of:

(i) determining a compatibility between the profile of said originating entity and the profile of said target entity;

(ii) if step (i) finds ~~determines~~ a direct profile compatibility between said originating entity and said target entity, establishing said desired communication directly between said originating entity and said target entity; and

(iii) if step (i) fails to find ~~determine~~ said direct profile compatibility between said originating entity and said target entity:

(a) specifying one of said originating entity and said target entity as a searching entity;

(b) searching said network by ~~from~~ said searching entity to identify an additional entity coupled to said network and having a direct profile compatibility with said searching entity to thereby form a linked entity pair providing communications between said searching entity and said additional entity;

(c) specifying said additional entity as said searching entity;

(d) repeating steps (b) and (c) until the non-specified one of said originating entity and said target entity from step (a) is identified as said additional entity; and

(e) establishing said desired communication between said originating entity and said target entity via said linked entity pairs of devices.

8. (Original) A method according to claim 7 wherein each said entity is selected from the group consisting of a device and a service.

9. (Currently Amended) A method of automatically establishing a process between an originating device and a target device, each said device having an associated profile, said method comprising steps of:

(i) determining a profile compatibility between said originating device and said target device;

(ii) establishing said process, if a direct profile compatibility between said originating and said target device is found, said establishing being directly between said originating device and said target device, wherein whereby said originating device communicates a message, using a messaging protocol, to said target device, said process being dependent upon said message; and

(iii) establishing said process, if said direct profile compatibility between said originating and said target device is not found, said establishing being indirect between said originating device and said target device, by incorporating at least one additional device, said at least one additional device having an associated profile, said incorporation forming linked device pairs among said originating device, said target device and said at least one additional device, said incorporation establishing both a direct profile compatibility between each linked pair of said devices, and a compatible mapping of said message from said originating device to said target device; wherein:

each of the steps (i), (ii), and (iii) is performed by at least one of the originating device, the target device, and the at least one additional device.

10. (Currently Amended) A method according to claim 9, ~~wherein~~ whereby said incorporating comprises sub-steps of:

(a) communicating, by one of said originating device and said target device, of said message and a first address, to a first additional device, thereby forming linked device pairs among said originating device, said target device and said first additional device, said communicating not requiring understanding by said communicating device of said message;

(b) establishing said process, dependent upon said message and said address, if direct profile compatibility is established between each linked pair of devices, ~~wherein~~ whereby said compatible mapping of said message is established from said originating device to said target device;

(c) communicating, by one of said originating device, said target device and said first additional device, if said direct profile compatibility is not established between each linked pair of devices, of said message, said first address and a second address, to a second additional device, thereby forming linked device pairs among said originating device, said target device, said first additional device and said second additional device devices, said communicating not requiring understanding by said communicating device of said message; and

(d) repeating the steps (b) and (c) until said process is established, said direct profile compatibility being established between each linked pair of devices, and said compatible mapping of said message being established from said originating device to said target device.

11. (Currently Amended) A method according to claim 9, whereby ~~wherein~~ said message comprises at least one of a command and a data value.

12. (Currently Amended) A method according to claim 9, ~~whereby~~ wherein said messaging protocol is the Extended Markup Language (XML).

13. (Currently Amended) A method of establishing a process between an originating entity and a target entity, each said entity being coupled to a communication network and having a corresponding profile related to information handled by said entity, said method comprising steps of:

(i) determining a compatibility between the profile of said originating entity and the profile of said target entity;

(ii) if step (i) finds ~~determines~~ a direct profile compatibility between said originating entity and said target entity, establishing said process directly between said originating entity and said target entity, wherein ~~whereby~~ said originating entity communicates a message, using a messaging protocol, to said target entity, said process being dependent upon said message; and

(iii) if step (i) fails to find ~~determine~~ said direct profile compatibility between said originating entity and said target entity:

(a) specifying one of said originating entity and said target entity as a searching entity;

(b) searching said network by ~~from~~ said searching entity to identify an additional entity coupled to said network and having a direct profile compatibility with said searching entity to thereby form a linked entity pair providing communications using said messaging protocol between said searching entity and said additional entity;

(c) specifying said additional entity as said searching entity;

(d) repeating steps (b) and (c) until the non-specified one of said originating entity and said target entity from step (a) is identified as said additional entity; and

(e) establishing said desired communication between said originating entity and said target entity via said linked entity pairs ~~of devices~~ to thereby establish said process and a compatible mapping of said message from said originating device to said target device.

14. (Original) A method according to claim 13 wherein said entities each comprise one of a device or a service.

15. (Currently Amended) A method according to claim 13, wherein whereby said message comprises at least one of a command and a data value.

16. (Currently Amended) A method according to claim 13, wherein whereby said messaging protocol is Extended Markup Language (XML).

17. (Currently Amended) A transparent telecommunications system comprising:

a communication network;

a plurality of devices coupled to said network, each said device having associated therewith at least one service, each said service having a corresponding profile related to information handled by said service, each said device ~~service~~ comprising:

means for determining a compatibility between the profile of said associated service and the profile of a further said service with which functional communications are intended;



means for establishing said functional communications between said associated service and said further service ~~if where~~ a direct profile compatibility ~~is~~ was found by said means for determining; and

means for searching said network to identify a device associated with an intermediate service having a profile compatibility with said associated service and by which intermediate functional communications between said associated service and said intermediate service can be established.

18. to 36. (Canceled)

37. (Currently Amended) A computer readable medium comprising a computer program for establishing a desired communication between an originating entity and a target entity, each said entity being coupled to a communication network and having a corresponding profile related to information handled by said entity, said computer program comprising modules for performing a method comprising the steps of:

(i) determining a compatibility between the profile of said originating entity and the profile of said target entity;

(ii) if step (i) finds ~~determines~~ a direct profile compatibility between said originating entity and said target entity, establishing said desired communication directly between said originating entity and said target entity; and

(iii) if step (i) fails to find ~~determine~~ said direct profile compatibility between said originating entity and said target entity:

(a) specifying one of said originating entity and said target entity as a searching entity;

(b) searching said network by ~~from~~ said searching entity to identify an additional entity coupled to said network and having a direct profile compatibility with

said searching entity to thereby form a linked entity pair providing communications between said searching entity and said additional entity;

(c) specifying said additional entity as said searching entity;

(d) repeating steps (b) and (c) until the non-specified one of said originating entity and said target entity from step (a) is identified as said additional entity; and

(e) establishing said desired communication between said originating entity and said target entity via said linked entity pairs of devices.

38. (New) An apparatus for communicating with a target device or at least one additional device, comprising:

determining means for determining a profile compatibility between the apparatus and the target device;

first establishing means for establishing a communication between the apparatus and the target device, if the profile compatibility between the apparatus and the target device is found; and

second establishing means for establishing a communication between the apparatus and the at least one additional device, if the profile compatibility between the apparatus and the target device is not found,

wherein, if said second establishing means establishes the communication between the apparatus and the at least one additional device, a communication is established between the at least one additional device and the target device.

39. (New) An apparatus according to claim 38, further comprising:

searching means for searching at least one additional device whose profile is compatible with the profile of the apparatus,

wherein said second establishing means establishes the communication between the apparatus and the at least one additional device searched by said searching means.

40. (New) An apparatus according to claim 38, further comprising:  
requesting means for requesting the at least one additional device for format conversion of data from the target device,

wherein said second establishing means established the communication to receive the converted data from the at least one additional device.

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